No. 871,585. PATENTED NOV. 19, 1907.

C. J. HAEBERLI.

COMBINATION TOOL.

APPLICATION FILED FEB. 21, 1906.

Fig. 1.

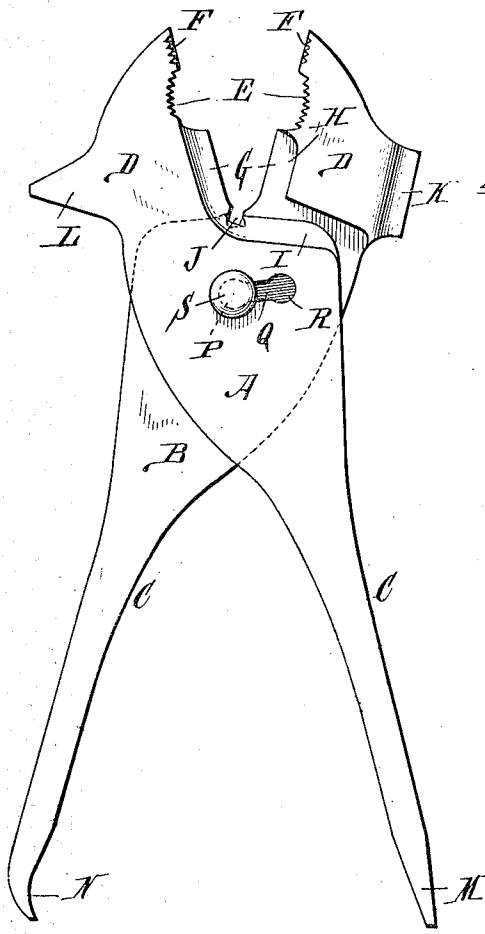


Fig. 2.

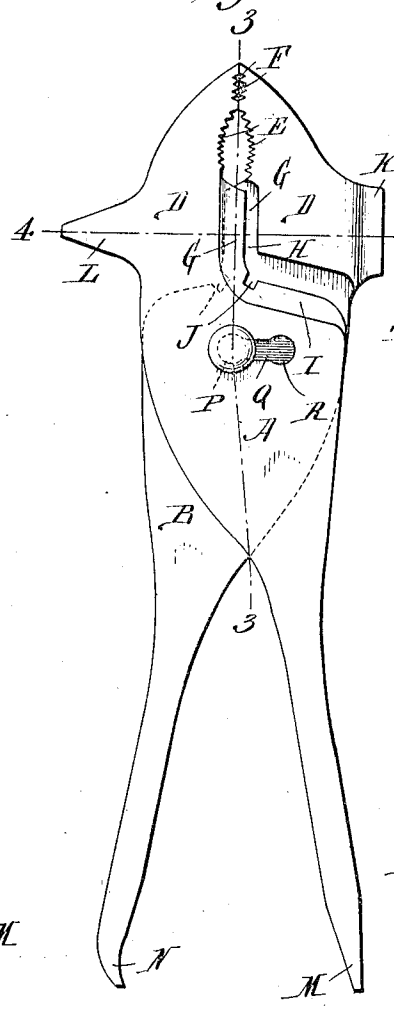


Fig. 3.

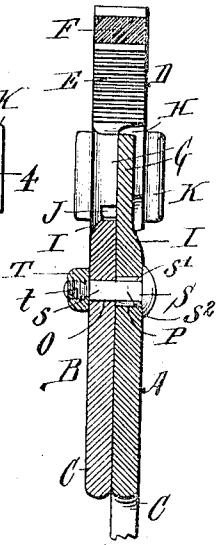
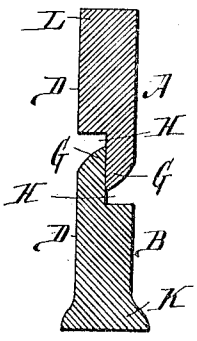


Fig. 4.



Witnesses:
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Harry Harris

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UNITED STATES PATENT OFFICE.

CHRISTOPHER J. HAEBERLI, OF BUFFALO, NEW YORK.

COMBINATION-TOOL.

No. 871,585. Specification of Letters Patent. Patented Nov. 19, 1907.

Application filed February 21, 1906. Serial No. 302,241.

To all whom it may concern:

Be it known that I, CHRISTOPHER J. HAEBERLI, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Combination-Tools, of which the following is a specification.

This invention relates to combination tools, and its objects are the production of a tool of the plier type which has its pivoted members adjustably connected so that the jaws may grip large or small objects, the pivotal point being coincident with a line passing centrally between the jaws when set for small range; and to provide a tool of this type combining in its make-up in simple and inexpensive form, an ordinary hammer, a riveting-hammer, snips, pipe-wrench, screw-driver, nail-extractor, and wire-cutter.

The invention consists in the construction, arrangement and combination of parts to be hereinafter described, and particularly pointed out in the appended claims.

In the drawings,—Figure 1 is a side view of a tool constructed according to my invention, the same being open. Fig. 2 is a similar view showing the tool closed. Fig. 3 is a central longitudinal section taken on line 3—3, Fig. 2. Fig. 4 is a transverse section taken on line 4—4, Fig. 2.

Referring to the drawings in detail, corresponding letters of reference refer to corresponding parts throughout the several figures.

The reference letters A and B designate the two pivoted members of the tool, each comprising a handle C and an off-set jaw-portion D. The jaw-portions are oppositely offset and in thickness correspond with the combined thickness of the pivoted members at their point of crossing. The inner edges or meeting faces of the jaws are provided with concaved serrated gripping-portions E for gripping pipe or other round objects; flat serrated nipping-portions F; and overlapping longitudinally disposed shearing-blades G forming tin-snips. The edges of the blades G extend beyond a line drawn centrally between the jaws when closed, and each jaw is provided with a longitudinal depression H for the reception of the blade of the coöperating-jaw. The pivoted members are widened at their point of crossing and the front edges of the widened portions beveled, as at I, forming substantially a continuation of the beveled shearing-blades. This permits the severed portions of the tin being cut, to move rearward along the sides of the pivoted members, without obstruction. In the beveled front edges I of the pivoted members, notches J are formed which are adapted to register for the reception of wire when the jaws are opened, to be cut on closing the jaws. At the outer edge of one jaw a hammer-head K is formed, and at the outer edge of the other jaw a tapered projection L is provided to serve as a riveting hammer.

The rear end of one handle is beveled, as at M, to form a screw-driver, and the other is curved, as at N, to serve as a nail-extractor.

In one of the tool-members, (herein shown as member B) on a line passing centrally between the jaws, is formed a square aperture O which registers with a rounded opening P in the other member; the opening P being connected by a narrow slot Q with a rounded opening R. A pivot-pin S is passed through both members and has a square portion s fitting said square aperture and a rounded portion s^1 fitting aperture P, and flattened at opposite points, as at s^2, to permit of moving member A to bring the pivoted-pin into opening R, whereby a greater range of movement is obtained to permit of grasping larger objects between the jaws. A nut T is applied to the reduced end t of the pivot-pin to retain the members in pivotal relation. By giving the pivot-pin a fixed position in one of the tool-members and having such position in a plane coincident with the opposing faces of the jaws when closed, the jaws separate evenly, and an effective shearing action is obtained.

Having thus described my invention, what I claim is,—

1. A tool of the type described, comprising two pivotally connected members having each a handle and a jaw, each jaw having a flat nipping-portion, a concaved gripping-portion in rear of said nipping-portion, a longitudinal shearing-blade projecting beyond a line coincident with the face of said nipping-portion and having its edges in a plane parallel with said nipping-portions, and a longitudinal depression adapted to receive the shearing-blade of its coöperating jaw.

2. A tool of the type described, comprising two pivotally connected members having each a handle and a jaw, said jaws having concaved gripping-portions in their meeting

faces, and longitudinal shearing-blades in rear of said gripping-portions having outer free ends and their edges in a plane parallel with the meeting faces of the jaws on which they are formed.

3. A tool of the type described comprising two pivotally connected members having each a handle and a jaw, said jaws having flat nipping-portions adapted to contact when the jaws are closed and longitudinal shearing-blades in rear of said nipping-portions extending beyond a line coincident with the nipping-portions of the jaws on which they are formed with their edges in a plane parallel with the corresponding nipping-portions, each jaw having a longitudinal depression to receive the shearing-blade of the co-acting jaw.

4. A tool of the type described, comprising two crossed pivotally connected members widened at their points of crossing and having the front edges of said widened portions beveled, each member having a handle and a jaw, said jaws having flat nipping-portions, concaved gripping portions, and longitudinally disposed shearing-blades between said gripping-portions and the beveled edges of the widened portions of said members.

In testimony whereof, I have affixed my signature in the presence of two subscribing witnesses.

CHRISTOPHER J. HAEBERLI.

Witnesses:
CHAS. HAGER, Jr.,
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